

SEP 29 1976

Mr. Ralph Nery
State of North Carolina
Utilities Commission
Raleigh, North Carolina 27602

Dear Mr. Nery:

This refers to the Commission's Order in Docket No. G-32, issued June 30, 1976, granting the Greenville Utilities Commission (GUC) a waiver from compliance with the cathodic protection requirements of 49 CFR 192.457(b) until March 1, 1977, for 15 miles of coated and wrapped mains, and 70 steel services, and until August 1, 1985, for 900 bare steel services. The Order is assigned OPSO Docket No. NC-76-5.

As you know, the authority of a State agency under Sec. 3(e) of the natural Gas Pipeline safety Act of 1968 to grant waivers from the Federal standards is conditioned upon the State agency giving the Secretary "written notice at least 60 days prior to the effective date of the waiver." Sec. 3(e) further provides that if the Secretary objects in writing before the effective date of a waiver, the state agency action granting the waiver will be stayed. Normally, the 60-day or longer period within which the secretary may object begins to run when the Department receives a letter transmitting a State agency waiver for our review. In our normal business routine, that letter and waiver is then immediately assigned for acknowledgement and response within a designated time. In this docket, however, the Commission's Order, which we received by mail on July 2, 1976, was not accompanied by a letter of transmittal. As a consequence, the matter was not immediately assigned for action in the course of our normal business routine, and we did not begin our review until recently. Under these circumstances, we believe that the Secretary's statutory period for review of the Commission's action began when we identified the Order as a State waiver requiring our review and that the period has not yet expired.

We have reviewed the Order and accompanying information. GUC has not presented any cogent reasons to show that Section 192.457(b) is inappropriate for its particular situation or why it could not meet the codified deadline for compliance. Although the record indicates that GUC believes that compliance would be "too expensive," this assertion is not substantiated for any of the pipelines covered by the waiver. Thus, information has not been presented to show that a compliance deadline of March 1, 1977 is more appropriate than meeting the deadline of August 1, 1976, for 15 miles of coated and wrapped mains and 70 steel service lines, or that an 8-year plastic pipe insertion program for 900 bare steel service lines is more appropriate than complying with Section 192.457(b). We, therefore, object to the granting of the waiver.

Both OPSO and State agency compliance efforts include discretionary action to defer imposition of penalty or other sanction while an operator executes a plan for compliance. The Commission may wish to take into account the effort which the GUC has made toward meeting compliance with Section 192.457(b) in determining the nature and extent of its enforcement action with regard to the 15 miles of mains and 70 steel service lines. However, replacement of the 900 bare steel service lines with plastic pipe is not a plan to comply with Section 192.457, but rather a plan to meet a proposed alternative requirement. Thus, the matter does not fall within the Commission's discretionary power to enforce Section 192.457, and GUC would need a waiver to avoid liability for a penalty or other sanction. Should GUC wish to apply for reconsideration of its waiver request for the 900 service lines, we suggest that it present adequate information to show why the replacement Plan is appropriate and why GUC would need eight years to complete the plan.

In accordance with Section 3(e) of the Act, the Commission's action is hereby stayed. The Commission may appeal this decision and request an opportunity for a hearing within 60 days from the date of this letter.

Sincerely,
Cesar DeLeon
Acting Director
Office of Pipeline Safety 00,3ratons

State of North Carolina
Utilities Commission
Raleigh, North Carolina

DOCKET NC. G-32

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Greenville Utilities Commission - Request for)	
Waiver of Effective Date for Ccmplying with)	ORDER
Section (92.457, Title 49, Code of Federal)	GRANTING
Regulations)	WAIVER

BY THE COMMISSION: The minimum Federal safety standards for pipeline facilities and the transportation of gas, 49 CFR 192, et. seq., were made applicable to all natural gas public utilities and municipal natural gas facilities in North Carolina by Commission Order in Docket No. G-100, Sub 13, dated December 30, 1970, and issued pursuant to U.S. 62-50. The Commission has entered into an agreement with and has been certified by the United States Department of Transportation, pursuant to 49 USCA 01674(a) and (b), to regulate and/or inspect all natural gas and pipeline facilities in North Carolina for compliance with the minimum Federal safety standards.

49 USCA 41672(e) provides in part as follows:

"(a) State Agency with respect to which there is in effect a certification pursuant to section 1674(a) of this title or an agreement pursuant to section 1674(b) of this title, may waive compliances with a safety standard in the same manner as the Secretary [of Transportation], provided such State Agency gives the Secretary written notice at least sixty days prior to the effective date of the waiver."

On May 27, 1976, Greenville Utilities Commission (hereinafter referred to as "Greenville") filed with this Commission a petition seeking waiver of the effective date for compliance with certain requirements of the minimum Federal safety standards, 49 CFR 192.457(b), dealing with external corrosion control of buried or submerged pipelines.

Section 192.457(b) provides that buried or submerged distribution pipelines installed prior to August 1, 1971, must, not later than August 1 1976, be cathodically protected "in areas where active corrosion is found." It further provides that "the operator shall determine the areas of active corrosion by electrical survey, or where electrical survey is impractical, by the study of corrosion and leak history records, by leak detection survey or by other means."

Greenville requests the Commission to waive the August 1, 1976, deadline to February 29, 1977 [sic], for cathodic protection of its all steel facilities /and to exempt certain steel service lines in the low pressure portion of its system from this cathodic protection requirement.

In support of its petition, Greenville shows that it has a total of 88 miles of distribution mains, 60 miles of which are steel coated and wrapped pipe to be cathodically protected and 28 miles of which are cast iron or plastic mains exempted from the requirements of 49 CFR 457. Greenville has presently cathodically protected 465 miles (75%) of its distribution mains requiring protection and 1500 of its 2610 steel services.

Due to the initial expense involved in conducting electrical surveys for the purpose of determining areas of active corrosion and in an effort to minimize corrosion leaks on all its steel facilities, Greenville chose to cathodically protect all of its steel facilities assuming that corrosion, either active or passive, exists on any anodically charged section of pipeline.

Employing the services of a corrosion consultant, Greenville has electrically surveyed its steel system for the purposes of developing cathodic protection sectionalization and of establishing protection criteria.

Greenville reports the following history:

"In 1922, the Board of Aldermen of the City had gas mains laid in the streets before paving, thinking some day Greenville might have a gas plant. In 1926, Carolina Gas was granted a franchise to build and operate a gas plant in Greenville and purchase these mains from the Board of Aldermen. In this franchise the Board put a clause giving Greenville a privilege of buying the gas plant at whatever price the company was offered for it, should they sell the plant, and in 1931, Carolina Gas sold out to the Tidewater Power Company. Greenville Utilities took advantage of this operation purchasing the plant for \$100,000 and has operated it since. The coal tar gas plant was eliminated in the early 40's and converted into air mix propane and in 1960 tied in with [converted to] natural gas which...[distribute] through some 88 odd miles of mains serving a good portion of our City.

"Greenville Utilities Commission's [GUCC] natural gas supply is received from [through] two metering stations operated by North Carolina Natural Gas. Station #1 is located behind Planters Warehouse and Station #1 is located on the 264 By-pass across from Union Carbide.

"The Gas Department consists of two crews, construction and service, with a total of 18 employees.

"GUCC, to date, has 4,605 meters in service serving residential and commercial customers with 5 industrial interruptible customers.

"The Gas Department has spent many man hours and dollars the past 3 years upgrading the gas system to meet the Federal Pipe Line Safety Act which is controlled by the State Utilities Commission (includes approximately 5 inspections per year).

...[Greenville has] an annual leak survey on...[its] gas system which is conducted by Heath Leak Consultants. The... leaks that are found are all repaired Within 3 months." [Annual Survey includes all downtown business areas and one- fourth of the remaining facilities.]

Enclosed as Exhibit A is Greenville's petition for waiver. As outlined, Greenville has installed rectifiers on its system and has provided cathodic protection on all but 15 miles of the 60 miles of steel mains (the 19 miles of cast iron and nine miles of plastic being exempted). Greenville estimates that the clearing of shorts on the remaining 15 miles will be completed by March 1, 1977. The attached Map, Exhibit E, denotes the location of mains not presently cathodically protected.

Greenville reports that approximately 900 tare steel services exist in the low pressure portion of its system. Attached Chart 1 shows that Greenville has been retiring services and installing plastic as part of an upgrading process. Greenville requests that: a waiver be granted exempting these bare services from cathodic protection and that, instead, a program of inserting with plastic continue at a rate of at least 100 per year, including 150 during fiscal 1976-77. Greenville contends that the funds required to cathodically protect these services would be better utilized in a plastic insertion program which would eliminate corrosion since plastic does not corrode. Greenville further contends that this service replacement would be in the best interest of the public and would not greatly affect public safety, citing the 1976 annual leak survey which recorded only 9 corrosion leaks on low pressure services and the 1971 survey which recorded only 7 such leaks in the same area.

The Engineering Staff of the Commission Gas Section has analyzed and reviewed the above petition. The following is a summary of the Staff's report:

Greenville has installed rectifiers necessary to provide cathodic protection for its steel mains and associated services and has achieved cathodic protection on 36 miles of mains and 1500 services since December 31, 1974.

As late as September 30, 1975, status reports from Greenville's corrosion consultant indicated that protection was expected to be completed by August 1, 1976. Greenville has scheduled the clearing of shorts and the bonding of insulating couplings to achieve cathodic protection by March 1, 1977.

Greenville stated it can insert plastic pipe in its low pressure service lines at a rate of at least 125 a year, which would mean compliance with all cathodic protection requirements in no more than eight years. The present rate of corrosion caused leaks, as determined by corrosion and leak history records for the low pressure service area, indicates

that the public would not be adversely affected by the proposed insertion program.

Based upon the foregoing, the petition filed by Greenville, the report submitted by the Staff, and the entire record in this matter, the Commission takes the following

FINDINGS CF FACT

1. That the Greenville Utilities Commission is a municipal gas operator subject to the jurisdiction of the North Carolina Utilities Commission.
2. That the Greenville Utilities Commission is a municipal gas operator subject to the jurisdiction of the North Carolina Utilities Commission.
3. That Greenville has installed cathodic protection on 45 miles of mains and 0100 service lines and has installed the rectifier which will be used to provide cathodic protection on the remaining 15 miles of mains and associated services.
4. That Greenville expects to complete the clearing of electrical shorts and the bonding of insulating couplings by March 1, 1977.
5. That Greenville has 19 miles of low pressure, cast iron mains which are not required to be cathodically protected but which have approximately 900 service lines requiring cathodic protection.
6. That Greenville proposes to conduct a plastic insertion program to provide corrosion protection for its steel service lines connected to low pressure, cast iron mains.
7. That Greenville has operated a safe pipeline system in the past with a low rate of corrosion leaks on low pressure services.
8. That at the end of the requested waiver periods Greenville will be in full compliance with 49 CFR 192.457(b).

Based on the foregoing Findings of Fact, the commission reaches the following:

CONCLUSIONS

1. That a seven-month extension of the effective date of compliance with the requirements of 49 CFR 192.457(b) is necessary in order to allow the Greenville Utilities Commission to complete cathodic protection of the remaining unprotected portion of its steel distribution mains and associated service lines and is not inconsistent with gas pipeline safety.
2. That a program of plastic insertion for steel service lines connected to low pressure, cast iron mains is the most economical and effective means of protecting these lines against corrosion leaks, is not inconsistent with gas pipeline safety, and should be continued instead of cathodic protection.

IT IS, THEREFORE, ORDERED as follows:

1. That, with the exception contained in paragraph 2 below, the Greenville Utilities Commission be, and hereby is, granted a waiver of the effective date of compliance with the requirements of the minimum Federal safety standards for pipeline facilities and the transportation of gas, 49 CFR 192.457(b), from August 1, 1976, to March 1, 1977.
2. That, with respect to steel service lines connected to low pressure, cast iron mains, the Greenville Utilities Commission be, and hereby is, granted a waiver of the requirements of 49 CFR 192.457(b), from :August 1, 1976, to August 1, 1985, provided: (a) that a reevaluation by leak survey shall be performed at least once every three years and annually in business areas; and (b) that plastic insertion shall be performed at a rate of at least 125 service lines per year including each service line on which a corrosion leak is discovered.

3. That, on a semiannual basis during the waiver period in paragraph 2 above, the Greenville Utilities Commission shall file a report on the form attached hereto as Appendix I, reporting to the Commission the status of Greenville's compliance with this Order. That the first report be for the reporting period ending February 28, 1977, and filed no later than March 15, 1977; thereafter, ' all reports shall be filed semiannually for the period ending February 28 and September 30 of each year, said reports due 15 days after said dates.

4. That a copy of this Order shall be forwarded to the Secretary of the Department of Transportation to constitute written notice of the waiver to be granted herein, and that this Order shall become effective 60 days from the receipt of said Order by the office of the Secretary of the Department of Transportation.

ISSUED BY ORDER OF THE COMMISSION. This the 30th day of June, 1976.

NORTH CAROLINA UTILITIES COMMISSION

Katherine M. Peele, Chief Clerk

NCUC STAFF ANALYSIS OF GREENVILLE UTILITIES
COMMISSION REQUEST FOR WAIVER TO 49CFR 192.457(B)

The Greenville Utilities Commission, Post Office Box 1847, Greenville, North Carolina 27834, telephone number : 919-752-7166, a natural gas operator within the state of North Carolina, has petitioned the North Carolina Utilities Commission requesting a waiver of 49 CFR 192.457(b) to extend the effective date of compliance for placing gas mains installed prior to August 1, 1971 under cathodic protection from August 1, 1976 to February 29, 1977 (SIC).

The gas Section here with reports the following in response to that request and recommends that a waiver be granted based on the following information.

The Greenville Utilities Commission (Greenville) is a municipal can operator in North Carolina having 3,330 services and 88 Miles of gas mains; 60 miles of steel mains and 28 miles of cast iron mains.

Greenville reports the following history: "In 1922, the Board of Aldermen of the City had gas mains laid in the streets before paving, thinking some day Greenville might have a gas plant. In 1926, Carolina Gas was granted a franchise to build and operate a gas plant in Greenville and purchase these mains from the Board of Aldermen. In this franchise the Board put a clause giving Greenville a privilege of buying the gas plant at whatever price the company was offered for it, should they sell the plant, and in 1931, Carolina Gas sold out to the Tidewater Power Company. Greenville Utilities took advantage of this operation purchasing the plant for \$100,000 and has operated it since. The coal tar gas plant was eliminated in the early 40's and converted into air mix propane and in 1960 tied in with natural gas facilities which are now available through some 88 odd miles of mains serving a good portion of our City.

"Greenville Utilities Commission's (GUCO) natural gas supply is received from 2 metering stations operated by North Carolina Natural Gas. Station #I is located behind Planters Warehouse and Station #II is located on the 264 Bypass across from Union Carbide.

"The Gas Department consists of 2 crews, construction and service, with a total of 16 employees.

"GUCO, to date, has 4,605 meters in service servicing residential and commercial customers with 5 industrial interruptible customers.

"The Gas Department has spent many man hours and dollars the past 3 years upgrading the gas system to meet the Federal Pipe Line Safety Act which is controlled by the state Utilities Commission (includes approximately 5 inspections per year).

"We have an annual leak survey on our gas system which is conducted by Heath Leak Consultants. The few leaks that are found are all repaired within 3 months." [Annual Survey includes all downtown business areas and one-fourth of the remaining facilities.]

Enclosed as Exhibit A is Greenville's petition for waiver. As outlined, Greenville has installed rectifiers on its system and has proved cathodic protection on all but 15 miles of the 60 miles of steel mains (the 28 miles of cast iron being exempted), Greenville estimates that the clearing of shorts on the remaining 15 miles shall be completed by March 1, 1977. The attached Map, Exhibit A, denotes the location of mains not presently cathodically protected.

The operator reports that approximately 900 bare steel services exist in the Low Pressure portion of its system. Attached Chart 1 shows that the operator has been retiring services and installing plastic as part of an upgrading process. Greenville requests that a waiver be granted exempting these bare services from cathodic protection and that instead a program of inserting with plastic continue at a rate of at least 100 per year including 150 during fiscal 1976-77.

Greenville contends that this service replacement will be in the best interest of the public and will not greatly effect public safety in that the last annual leak survey (defined above) recorded only 9 corrosion leaks on the Low

pressure services and that 7 corrosion leaks were recorded on the 1971 annual survey in the same area. The Staff investigation revealed that only 46 (7%) corrosion leaks were reported of the 663 total leaks from the last two system-wide surveys combined. This substantiates the low corrosion rate throughout the entire Greenville system including the Low Pressure services.

Discussion with Mr. William Weston was made in order to clear up the disparity between the remaining unprotected services and the estimated services to be protected in the high pressure area plus the 900 service lines off the cast iron mains. Mr. Weston related that the 1800 service lines reported on the Annual Report is an estimate of the remaining original service lines because no records were maintained of abandonments and retirements prior to Greenville's purchase of the system. As cathodic protection activity progressed, Greenville has retired inactive and stub services and has mapped existing lines. At the end of the waiver period for the steel system (February 28, 1977) Greenville contends that it will have the first accurate service count of its system.

In order to allow for an increased number of service lines in the low pressure system to keep the projected totals consistent, the staff inquired as to the feasibility of inserting 125 service lines per year as opposed to the 100 proposed. The staff felt that if the total is as high as estimated, then Greenville will complete its insertion program in 9 years. [Greenville's 100 per year proposal is also for a 9 year waiver]. Mr. Weston said 125 could be accomplished.

Based on the information above and the general Staff knowledge of the entire case, the Gas Section Staff recommends the following:

- 1) That Greenville be granted an extension of the effective date for compliance with 49 CFR 192.457(b) from August 1, 1976 to March 1, 1977.
- 2) That Greenville be granted a waiver to the cathodic protection requirements of the low pressure services on its system, provided that such services are inserted with plastic at a rate of at least 125 per fiscal year and that at least 150 be inserted in fiscal year 1976-77 and that all such I.P. services be either retired or inserted before July 1, 1985.

May 27, 1976

Mr. R. J. Nery
State Utilities Commission
Gas Section
Raleigh, North Carolina 27602

Dear Mr. Nery:

Greenville Utilities Commission's cost up through April 30, 1976, on our corrosion program has been \$49,893.65. This includes labor by our employees, materials and corrosion consultants. With the small system we have, our corrosion program has been very costly.

We have installed 3 rectifiers and the proper amount of anodes to protect our system under the supervision of General Corrosion Services. We have a total of 88 miles of mains, 60 miles wrapped steel, 19 miles cast iron and 9 miles of plastic. To date we have approximately 45 miles of wrapped steel under protection. We are in the process of locating dresser couplings and shorts on the remaining 15 miles of steel mains. With the best of equipment, this is a very difficult and time consuming job. Due to the lack of money, we are having to do this with our own construction crews along with our normal work load. We realize the importance of public safety and have made every effort to comply with the pipeline safety program. Not only do we have a corrosion consultant, but we take advantage of any corrosion courses that are available for our employees.

Greenville Utilities has approximately 900, 1 1/4" bare services on our low pressure (7" W.C.) cast iron system. We are requesting that we be allowed to insert polyethylene in these services eliminating a minimum of 100 services per year (see Exhibit A) until they are complete. In our 1976 - 77 budget, we anticipate doing 150 at a cost of \$22,000 (we have \$27,000 budgeted for our corrosion program). In our last leak survey on our services in our low pressure system, we found a total of 7 corrosion leaks.

Greenville Utilities is requesting a waiver on Subpart I, Section 192-457 (External Corrosion Control), and asking that the date be changed from August 1, 1976, to February 29, 1977, (7 months). We feel that this change will in no way endanger public health or safety. We will make every effort to complete the remaining 15 miles of main in lose time if possible. Your help in granting this extension will be greatly appreciated. I assure you that we will make every effort to move forward in the completion of this program.

Thank you for your assistance.

Sincerely yours,
W.F. Weston, Supt.
Gas Department

GAS DEPARTMENT HISTORY

1973 - 1974

In 1922, the Board of Aldermen of the City had gas mains laid in the streets before paving, thinking some day Greenville might have a gas plant. In 1926, Carolina Gas was granted a franchise to build and operate a gas plant in Greenville and purchase these mains from the Board of Aldermen. In this franchise the Board was wise enough to put a clause giving Greenville a privilege of buying the gas plant 4M whatever price the company was offered for it, should they sell the plant, and in 1931, Carolina Gas sold out to the Tidewater Power Company. Greenville Utilities took advantage of this operation purchasing the plant for \$100,000 and has operated it since. The coal tar gas plant was eliminated in the early 40's and converted into air mix propane and in 1960 tied in With natural gas facilities which era now available through some 88 odd miles of mains serving a good portion of our City.

Greenville Utilities Commission's natural gas supply is received from 2 metering stations operated by North Carolina Natural Gas. Station AI is located behind Planters Warehouse and Station OII is located on the 264 By-pass across from Union Carbide.

The Gas Department consists of 2 crews, construction and service, with a total of 16 employees.

GUCO, to date, has 4,605 meters in service serving residential and commercial customers with 5 industrial interruptible customers. The largest user, Burroughs- Wellcome, uses 1000,000 cubic feet of gas per day (summer load).

GUCO also has a bottle gee system serving 270 customers in the City of Greenville. In 1972, we had approximately 1500 bottle customers and since that time, we have converted 1230 of these customers to natural gas in order to cut down on delivery coats.

The Gas Department has spent many man hours and dollars the past 3 years upgrading the gas system to meet the Federal Pipe Line Safety Act which is controlled by the State Utilities Commission (includes approximately 5 inspections per year).

We have an annual leak survey on our gas system which is conducted by Heath Leak Consultants. The few Leaks that are found are all repaired within 3 months.